

L888

Western China Route

'The Silk Road'

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General Manager Regulatory & Industry
QANTAS Airways Ltd.



L888 - Background

- 1993 - Asia to Europe routes.



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 - Challenges:
 - **Political Tensions**

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- 1993 - Asia to Europe routes.
 - Challenges:
 - **Political Tensions**
 - **Inefficient route network**
 - **Enroute congestion**
 - **Commercial requirement for non-stop flights**

L888 - Background

- **Need to improve route network**
 - :
 - **Safety**
 - **Economical**

L888 - Background

- Need to improve route network
 - Safety
 - Economical
- *QANTAS* Route Study

Optimum Routes
BKK to LHR

60 N

Great Circle

45 N

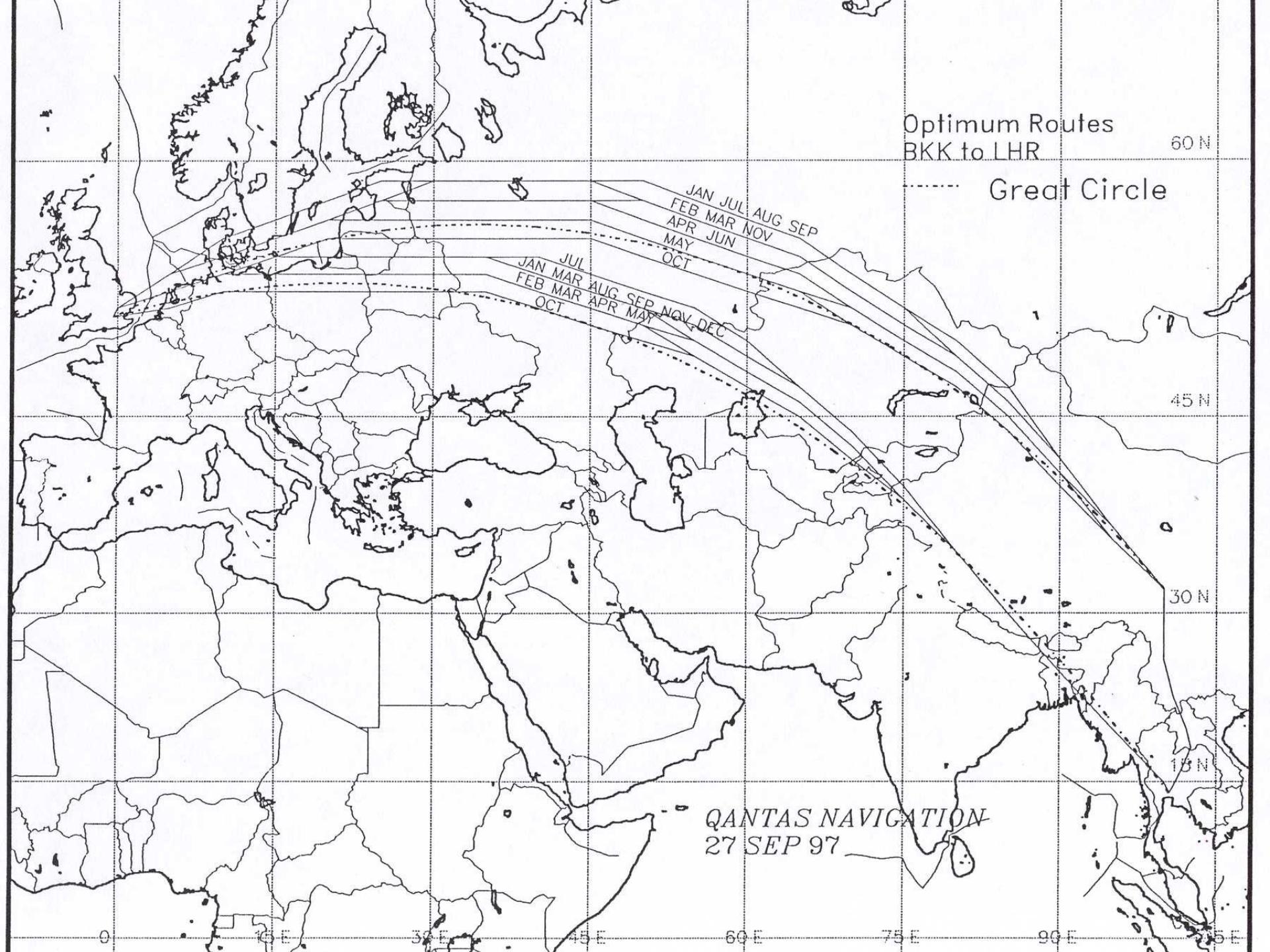
30 N

15 N

QANTAS NAVIGATION
27 SEP 97

JAN JUL AUG SEP
FEB MAR NOV
APR JUN
MAY OCT

JUL
JAN MAR AUG SEP APR MAY
FEB MAR APR MAY
OCT



L888 - Background

- Need to improve route network :
 - Safety
 - Economical
- *QANTAS Route Study*
 - China - Depressurisation problems
 - » Safety Heights > 20,000'
 - » High Navigation accuracy required
 - » Weather forecasting

L888 - Background

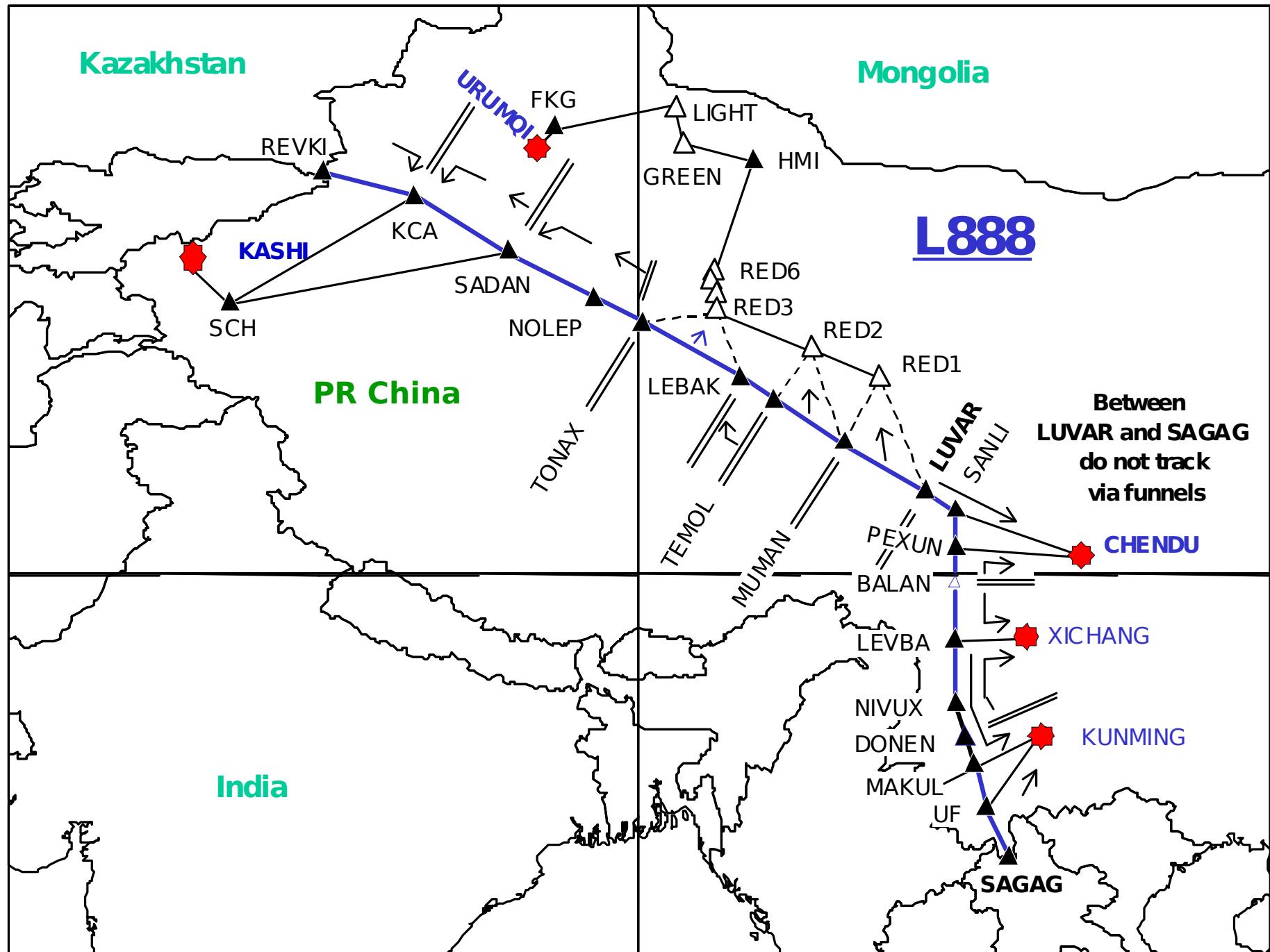
- **B747-400**
- **FANS - 1**
- **Revised QF route analysis**

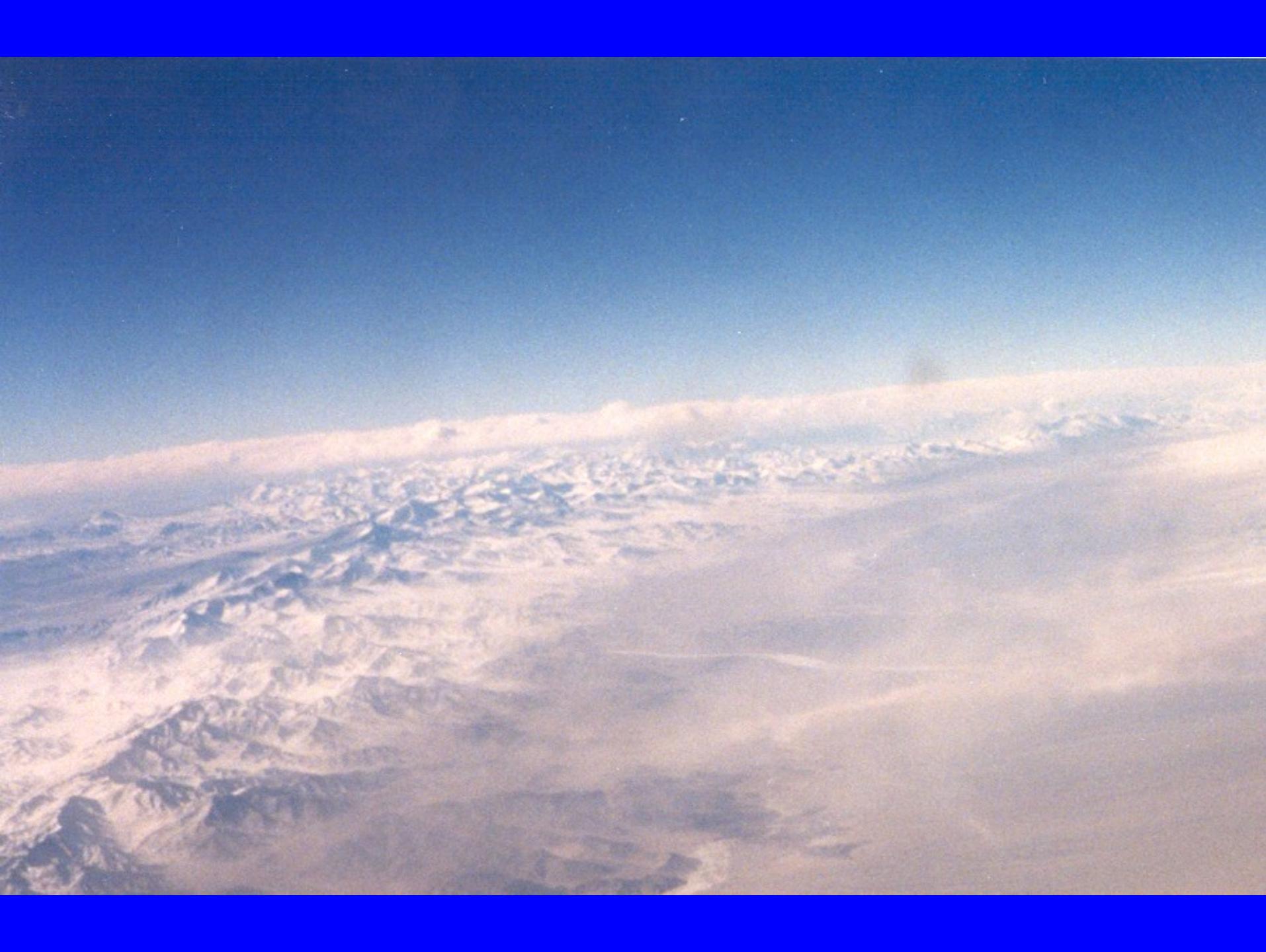
L888 - Background

- ***QANTAS Route Study***
 - Presented to industry : IATA RCG
 - Accepted by industry.
- **Work commenced 1994**

L888 - Today

- ICAO Route designation - 1999
- Workstation installation - 2000
- Controller training - 2000
- AIP Supplement - April 2000
- Testing - April 2000
- First Flight - 23 June 2000
- Regular Flights - March 2001







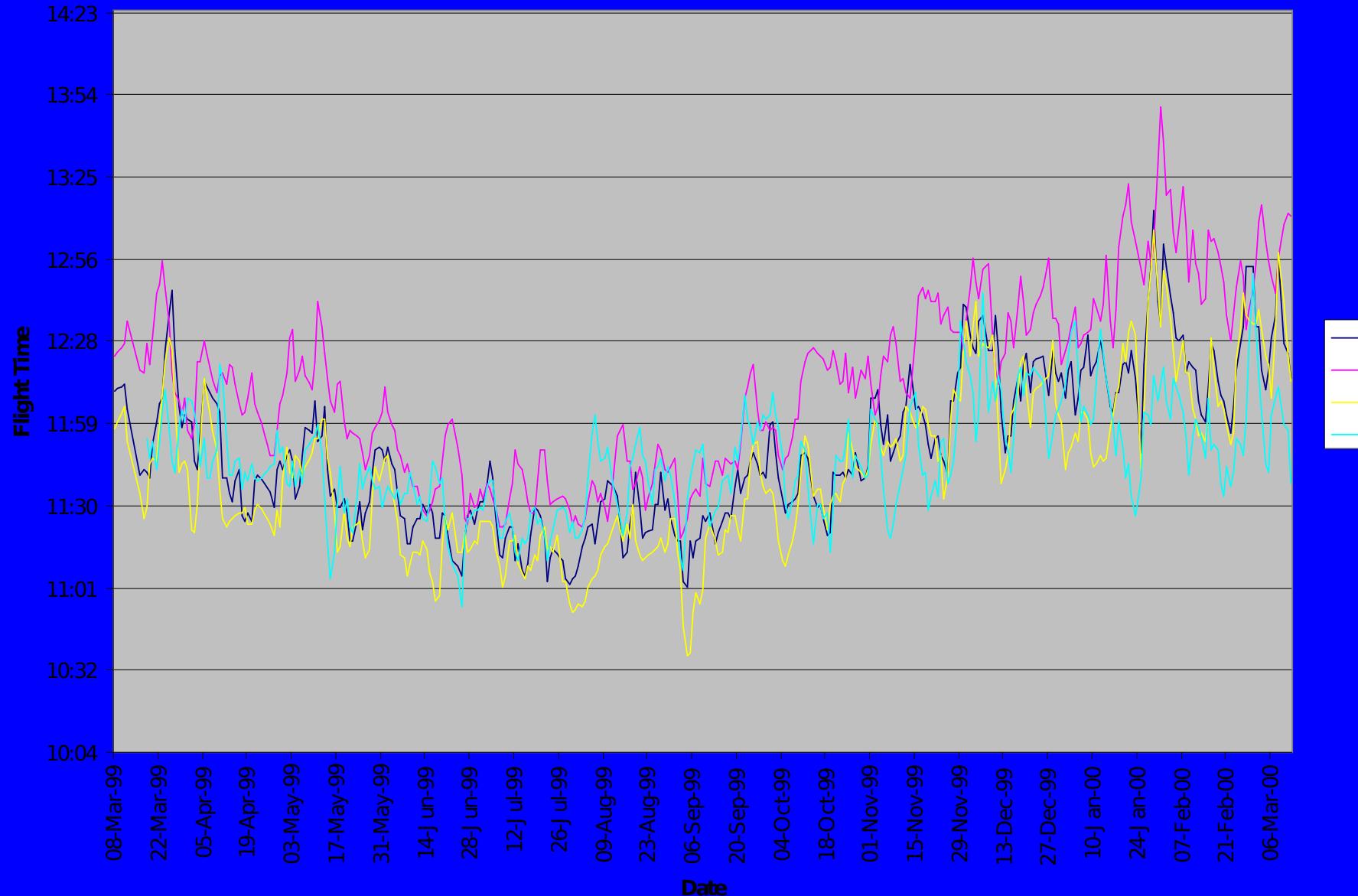
Weather and Climate

- No previous history
- Jetstream winds - 150knots
- High mountainous terrain
- New Zealand Metservice study
- Safety precautions
- Airport reports

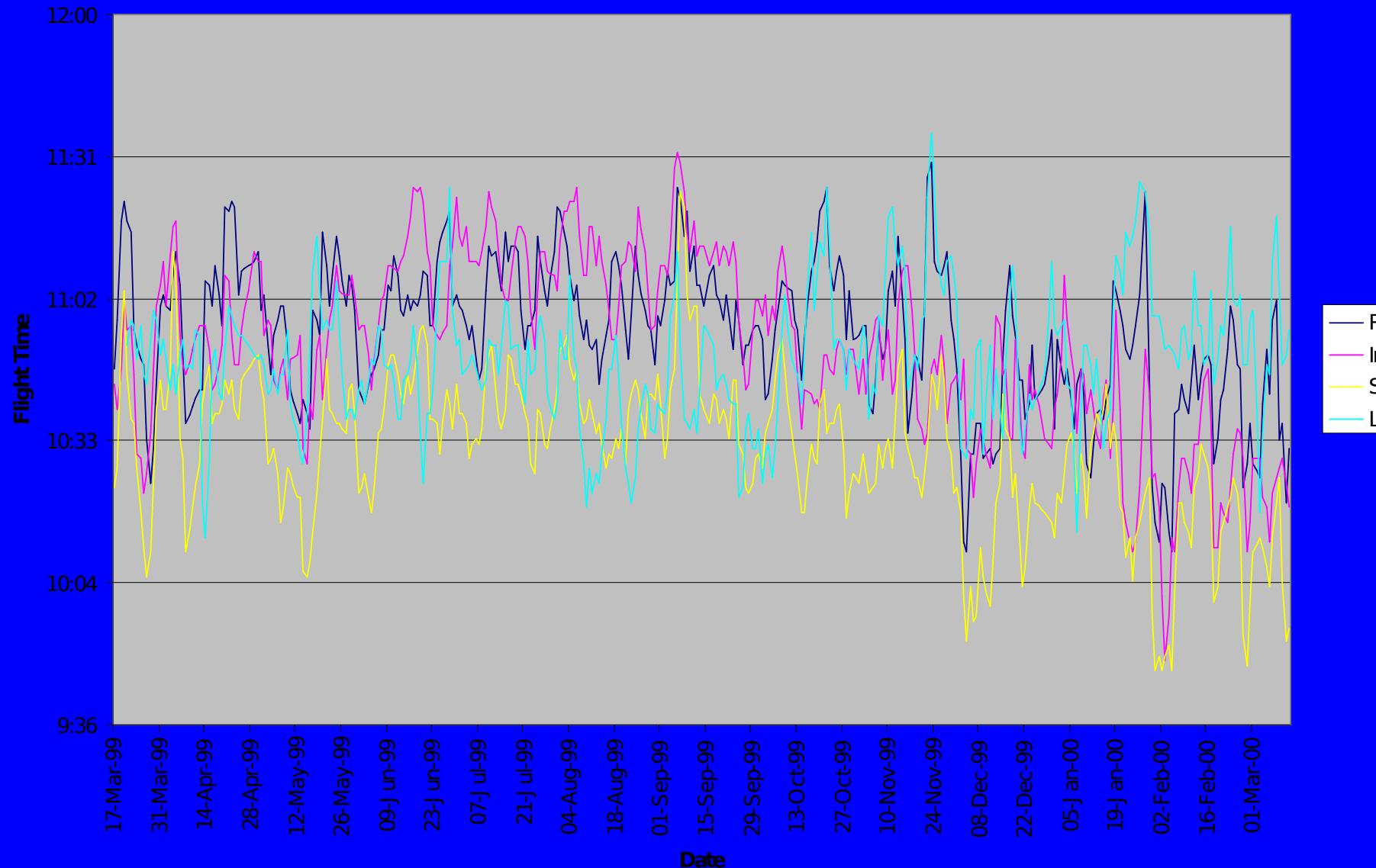
Validation

- 12 Months
- 4 Main tracks
- Daily Flight Plans:
 - Fuel (Maximum Payload)
 - Time
 - Cost (Fuel, Crew, Overflight Charges)

FLIGHT TIME BKK-LHR



FLIGHT TIME LHR-BKK



The L888 FIRSTs

- First CNS/ATM Route over land.
- Simulator configured as an aircraft for trials.
- Flight Management Computer configured for Escape Routes.
- Weather forecasting validation.

The Benefits

- Improved Safety, Reliability and Integrity.
- China has CNS/ATM technology.
- QANTAS has route optioning.
- Competitive environment established between States.

The Problems

- Bureaucratic.
- Regulatory.
- Competitive.

The Future

- Safe and Seamless Air Traffic Control across all regions.
- Move towards ‘FREE FLIGHT’
 - 4D Flight:Flex Tracks
 - Dynamic Rerouting
 - User Preferred Trajectories

Any Questions??

